

(19) World Intellectual Property
Organization
International Bureau



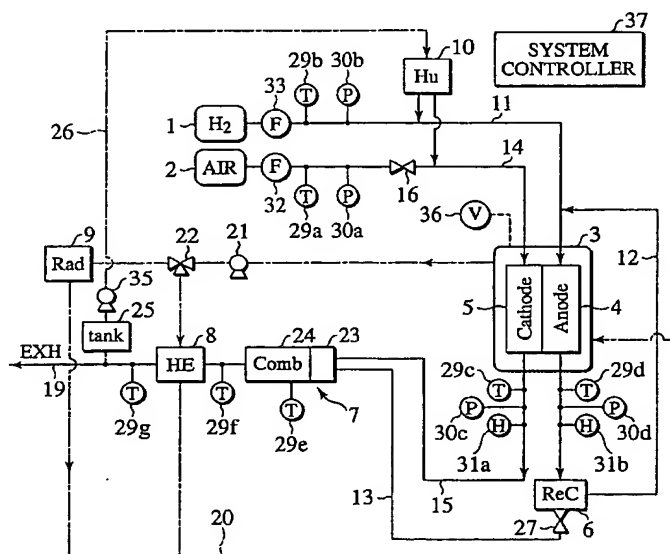
(43) International Publication Date
27 May 2004 (27.05.2004)

PCT

(10) International Publication Number
WO 2004/045004 A2

- (51) International Patent Classification⁷: **H01M** [JP/JP]; 7-1002, 3-16, Noukendai 4-chome, Kanazawa-ku, Yokohama-shi, Kanagawa 236-0057 (JP). **OBATA, Takeaki** [JP/JP]; 17-5, Kamariyahigashi 8-chome, Kanazawa-ku, Yokohama-shi, Kanagawa 236-0042 (JP).
- (21) International Application Number: PCT/JP2003/013564
- (22) International Filing Date: 23 October 2003 (23.10.2003) (74) Agents: **MIYOSHI, Hidekazu** et al.; 9th Floor, Toranomon Daiichi Building, 2-3, Toranomon 1-chome, Minato-ku, Tokyo 105-0001 (JP).
- (25) Filing Language: English
- (26) Publication Language: English (81) Designated States (national): CN, KR, US.
- (30) Priority Data: 2002-329978 13 November 2002 (13.11.2002) JP (84) Designated States (regional): European patent (DE, FR, GB).
2003-296773 20 August 2003 (20.08.2003) JP
- (71) Applicant (for all designated States except US): **NISSAN MOTOR CO., LTD.** [JP/JP]; 2, Takara-cho, Kanagawa-ku, Yokohama-shi, Kanagawa 221-0023 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **MATOBA, Tadashi**
- Published:
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FUEL CELL SYSTEM AND RELATED METHOD



(57) Abstract: A fuel cell system and related method are disclosed having a system controller 37 that executes enthalpy calculation based on status signals, related to anode off-gas and cathode off-gas, detected by a temperature detector 29, a pressure detector 30 and a humidity detector 31 for thereby predicting a combustion temperature of a combustor 7 during purging. In the presence of a predicted combustion temperature exceeding an upper limit, cathode off-gas is increased in volume to limit a combustion temperature of the combustor 7 to a value below the upper limit value.